Digitronics Software User's Guide

Formerly the "Terminal User's Guide"

March, 1994

This manual is an introduction to the use of Digitronics Software applications on OpenVMS systems. It gives the beginning user enough information to access the computer system and begin using application programs.

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Preface

Objectives

This manual is an introductory guide to using Digitronics Software application products on VAX and AXP computer systems. It gives the new user enough information to access the OpenVMS system and begin using application programs.

Intended Audience

The *Digitronics Software User's Guide* is suitable for any user who is new to Digitronics products, or OpenVMS, or both. It addresses the needs of both end users and data processing professionals whose duties require them to work with our products.

Prerequisite Reading

This manual presumes no prior knowledge of OpenVMS or Digitronics software products.

Structure of this Document

Associated Documents

For more information about the OpenVMS system, consult various volumes of the OpenVMS Documentation Set. For the most part, the VMS documentation is geared toward programmers, operators, system managers and other trained data processing staff.

The following Digitronics Software manuals contain information which might be of interest to you:

Contents

- Secondary School Site Administrator's Guide
- Elementary School Site Administrator's Guide
- Student Services Educational Application (SSEA) Reports Reference Manual

Summary of Technical changes

None; this is a new manual.

Acknowledgments

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1 Preparing to Access the System

The computer system you will be using is one of the *VAX* series, manufactured by Digital Equipment Corporation (DEC). The VAX is a *multi-user* system, meaning that a single VAX computer can simultaneously serve the needs of many people (unlike most PCs, which are single-user systems).

1.1 Getting to know your Workstation

Depending on how your system is configured, you will be using some or all of the following equipment to access the VAX:

Video terminal: this device has a screen to display information coming from the VAX, and a keyboard for you to type on.

Personal computer (PC): With a communications software package, the keyboard and screen of your PC can substitute for those of a video terminal.

Modem: lets you access the VAX over ordinary telephone lines, instead of having a permanent connection.

Printer: You may have a local printer directly attached to and under the control of your terminal or PC.

Whenever your terminal is turned on, or your PC communications software is loaded and running, a visible marker called a *cursor* appears on the screen to indicate where the next character you type will go. The cursor is usually in the form of either a block or an underline, and may be steady or blinking (on a PC, do not confuse this cursor with the arrow-shaped *mouse cursor*, which might also be visible on the display). On many terminals and PC communications packages, you can select the cursor appearance you prefer; we suggest the blinking block format because it is easiest to spot on a crowded display.

All video terminal and PC keyboards—or at least those made specifically for use in the USA—have the familiar standard "QWERTY" layout of letter and number keys. Keys for symbols are scattered around the edges of this main cluster in arrangements that differ slightly from manufacturer to manufacturer.

If you haven't worked with a computer or terminal keyboard before, some of the keys may be unfamiliar to you, and others may work slightly differently from the corresponding typewriter keys. Here's a list of keys you should pay particular attention to:

LOCK This key is like the shift-lock key on a typewriter, but usually affects only the letters on PC and terminal keyboards. It is sometimes labeled "ALPHA LOCK" or "CAPS LOCK" to emphasize this fact.

Preparing to Access the System Getting ready to access the system

If you're on a PC, watch out for this twist: while LOCK is in effect, holding SHIFT down while typing letters produces lowercase letters.

- CONTROL Usually located somewhere on the left side of the alphanumeric cluster, this key may also be labeled "Ctrl" or "Cntl". The CONTROL does nothing by itself: in use, it is always held down while another key is pressed. CONTROL combinations are used to send commands to the VAX. The notation CONTROL + X means to hold down the CONTROL key while pressing X.
- ALT This key is found on PC keyboards. Like SHIFT and CONTROL, it only works when held down while pressing another key. ALT key combinations are used to control features of some communications packages.
- HELP, F2, PF2 When working with a screen, you can press HELP to get some information about the field in which your cursor is located.
 - Many video terminal keyboards, as well as most PC keyboards, do not have a HELP key. On these, the F2 (or PF2) key serves as the HELP key.
- SELECT, ESC The SELECT is located in the editing cluster, which is the middle grouping of keys. It is used to perform special functions in some screens.
 - On keyboards without a SELECT key, you can use the ESC key in place of SELECT.
- ←, →, ↑, ↓ These keys are usually located off to the right of the main keyboard cluster, typically grouped in the shape of a diamond or an upside-down "T"). They are used to move the cursor around a screen.

1.2 Getting ready to access the system

When you are ready to access the VAX system for the first time, your system manager will give you several pieces of information that you will need. At the very least, you will receive a *username* and a secret *password*. Basically, the username tells the system who you are, and the password proves that you are who you say you are.

Keep your password secret: it is your protection against unauthorized people accessing the VAX under the guise of your username! Here are a few tips to help make sure that your secret password *stays* secret:

- NEVER write your password down.
- NEVER reveal your password to anybody else except in the most extreme of circumstances.
- Avoid choosing passwords that could be easily guessed by someone casually acquainted with you, such as names of family members.
- If you think that someone may have learned your password, change it immediately using the procedure described in Section 3.5.

As an additional security measure, you will normally be required to select a new password the first time you access the system, and also periodically thereafter.

Depending on your particular system setup, you might also need one or more of the following additional pieces of information in order to access the system and log in:

Preparing to Access the System Getting ready to access the system

Dial-up phone number: if you must manually connect dial-up calls, you will need the appropriate telephone number. Treat dial-up numbers as confidential information.

Server password: a secret word that must be given before you can gain access to any of the services offered by your computer network. It is usually required only for dial-up access. Treat server passwords as confidential information.

Service name: You might need to select from among several services offered by your network.

Secondary password: a second password needed to log in to your computer account, and usually known only to someone else (your supervisor, for example). Your system administrator will tell you if a secondary password is in effect for your account.

2 Logging in, Logging out, and Maintaining Security

This chapter gives you information about starting and ending a session with the computer.

2.1 Logging in

The process of establishing a session on the VAX is called *logging in*. Here is the step-by-step procedure:

- 1. Get your equipment ready. If you are using a video terminal, turn on the power and give it a few seconds to warm up. If using a PC, boot up as usual and start your communications software running; your System Manager will give you specific instructions for your particular hardware and software set-up.
- 2. If you are accessing the system by dial-up, make the connection now. Your System Manager will describe how to do this with the your particular equipment set-up.
- 1. If you see a pound-sign (#) prompt on your screen, enter the **server password** that your System Manager gave you:

SERVERPWD_

If you entered the password incorrectly, another # will appear and you will be able to try again. After a number of incorrect attempts (usually three), the server will disconnect you and hang up your phone connection (if using dial-up).

 Next, you you may see an announcement message and an Enter username> prompt similar to this example:

DECserver 200 Terminal Server V2.0 (BL29) - LAT 5.1

Please type HELP if you need assistance

Logging in, Logging out, and Maintaining Security Logging in

Enter username>

If so, enter your username and press \bot .

1. If you now see the prompt Local>, enter CONNECT (or CONN), a space, the **service name** that your System Manager gave you, and press ↓:

Local> CONNECT STUDENT J

```
Local -010- Session 1 to STUDENT on node LARRY:: established
```

1. You should now see a greeting message followed by a Username: prompt:

```
Welcome to OpenVMS V5.4 Username:
```

If not, press \rightarrow several times to get the computer's attention. If you still get no response after several tries, contact your Data Processing department for help.

1. Enter your username and press

in response to the Username: prompt. A Password: prompt will then appear. Enter your password and press

No characters will appear on your screen while you type your password—this prevents other people from seeing your password.

If a second Password: prompt appears, your account requires a secondary password. Have the person who knows the secondary password (usually your supervisor) enter it, and press \rightarrow .

When you have entered your username and password (and secondary password, if required) correctly, the system will respond with several lines of messages, as in this example:

Welcome to OpenVMS V5.4-2 Username: MYNAME Password: MYPASSWORD ATTENTION ALL USERS:

System will be down Monday, 13-JUL-1992, from 6:00 PM to 8:00 PM for scheduled maintenance.

Last interactive login on Tuesday, 19-MAY-1992 21:59

_

You have 1 new Mail message.

Some of these are messages (such as the one that starts out "ATTENTION ALL USERS... from your Data Processing staff or system manager.

Pay particular attention to the "last interactive login" message: it tells you the date and time that someone last logged in under your username. Check that the date and time shown are reasonable for your computer usage patterns (remember that the time is in 24-hour format, so 3:00 PM is shown as 15:00). logins taking place at times that are not normal for you (for example, late at night, on weekends, etc.), contact your System Manager immediately.

Logging in, Logging out, and Maintaining Security Logging Out

1. At this point, the system may display the following message:

Your password has expired; you must set a new password to log in

New password:

This means it's time for you to choose a new password. Select a new password and enter it in response to the New password: prompt (remember, as always, to press \(\preceq \) your entry):

New password: MYNEWPASSWORD↓

Nothing will echo back to your screen as you type your new password.

Next, the system will then prompt you to enter the new password again by displaying:

Verification:

Re-enter your new password, exactly as you typed it before, and press ↓:

Verification: MYNEWPASSWORD↓

1. If your account was set up to place you into a menu, the menu will appear, and the cursor will wait near the bottom of the screen. Otherwise, a *system prompt*—usually a dollar sign (\$)—will appear at the left side of the screen, and the cursor will wait next to it. Either way, the system is now ready to accept your commands.

2.2 Logging Out

At the end of your session, you must inform the computer that you are finished working. This process is called **logging out** and has these purposes:

- It helps secure your terminal against unauthorized use. Anyone wishing to access the computer through your terminal after you have logged out will have to log in with a valid username and password.
- It releases system resources you held during your session, thus making those resources available to other users.
- 3. If you are being billed for your computer usage, logging out stops further accumulation of charges against your account.

Complete your first VAX session by logging out as described below:

- 2. At the system prompt, enter LOGOUT →:
 - \$ LOGOUT. | logged out at 29-APR-1992 17:13:58.49

Logging in, Logging out, and Maintaining Security Logging Out

1. If you see **Local>** prompt, enter another LOGOUT → command to complete the logout process:

Local> LOGOUT _

If you are using dial-up access, your phone connection should terminate within a few seconds after you complete your logout; your System Manager can tell you how to verify this with your particular equipment set-up.

Always log out when you leave your terminal unattended, to prevent possible unauthorized access by passers-by.

3 Using the System

Now that you know how to start and end a computer session by logging in and logging out, you are ready to begin using the system to get real work done. This chapter introduces some of the basic procedures you will be using in your daily routine:

- How to run programs
- How to use menus
- How to work with screen forms
- How to get help and information
- Selecting different fiscal years and schools

And finally, although you should have already learned how to change your password by experience during your first login, this important security feature is covered in detail.

3.1 Running Programs

A *program* is essentially a set of instructions directing the computer to perform a particular task. Programs are the tools that get work done for you on the computer.

You will have access to a variety of programs that perform tasks related to your job responsibilities. Every program has a short code name by which you refer to it. For example, the main student information screen is **STUCRT**, a *Brief Student Directory* report is produced by **STU01**, **ATT05** prepares the *Monthly Attendance* report, and so on.

If these names seem a bit cryptic to you, rest assured that there is a method to the apparent madness. With the exception of a few special cases, programs are named according to a systematic scheme in which each name consists of two pieces:

- The first half is a short (usually three letters) abbreviation that hints at the general application area to which the program belongs. For example, programs that deal mainly with general student information have names that start with STU.... Other examples include GRD... for grade reporting, ATT... for attendance, and so on.
- The second half is usually either "...CRT or a two-digit number. "...CRT" identifies a screen; a number means a report or update program.

Using the System Running Programs

Obscure as it might be, such a naming convention is necessary in a system containing literally *hundreds* programs.

After you have worked with the system for a time, you will become comfortable with the names of the programs that you use frequently. Eventually, you will even find it convenient to use program names in conversation or writing when you want to refer to specific programs; after all, it's a lot easier to say "SSS19" than "Listing of students without enough course requests".

There are two methods you can use to a programs:

- 1. Invoke the program at the system prompt (\$ prompt)
- 2. Select the program from a **menu**.

3.1.1 Working at the system prompt

In addition to being a useful verbal shorthand, every program name is a command to the computer to execute that program. When you see the system prompt—usually a dollar sign (\$)—at the left side of your screen, simply enter the name of the program you want to run and press \dashv :

\$ STUCRT ...

As easy as this looks, there is one catch: you have to know the name of the program that you want to run. For the experienced user, working from the command line is an efficient and worthwhile choice. But if you're just learning the system, that dollar sign and blinking cursor staring back at you from your screen can be rather intimidating. Fortunately, there is an easier way to run programs: *menus*.

3.1.2 Working with menus

A **menu** is just a list of choices. Computer menus are, in spirit, very much like restaurant menus: the menu presents you with a list of programs available to you, and you simply pick the one you want to execute. Figure 3-1 shows an example of a menu display.

Using the System Running Programs

	STU_LISTINGS	Student listings Menu
2. 3. 4. 5.	STU02 STU11 STU33 STU41	PRINT CONDENSED STUDENT ALPHA DIRECTORY PRINT STUDENT DIRECTORY PRINT STUDENT DATA BASE ERROR LISTING PRINT STUDENT LISTING BY STREET NAME UNDUPLICATED VOCATIONAL EDUCATION COUNT (CBEDS) ADVISOR LISTING
Туре	e the number or	name of your selection. Press HELP, PF2, or F2 for more Info

Figure 3-1: Example of a menu

Because your choices are laid out right before you, working from a menu is much more convenient than working from the system prompt—especially if you are just starting to learn the system.

3.1.2.1 Selecting items from the menu

Each line on a menu describes a *menu item* that is available to you. Many of the menu items you see are programs that you can run, but some are other menus that contain additional selections (the items titles generally make it clear which items are programs and which are sub-menus).

To *select* an item from the currently displayed menu, enter the item number shown to the left of the item, press \rightarrow . Instead of the number, you may also enter the item *code* which immediately follows the number.

For example, suppose you have the menu in Figure 3-1 displayed and you want to execute the item called "PRINT STUDENT DIRECTORY". This item is line #2 on the menu, and its item code is "STU02", so you could execute it by entering either $2 \downarrow 1$ (or STU02 $\downarrow 1$).

3.1.2.2 Bypassing the Menu

You can execute any menu item available to you—whether or not it appears on the currently displayed menu—by entering its code name. You don't need to wend your way down through layers of sub-menus to get to the exact menu on which that program appears.

For example, suppose you have the menu of Figure 3-1 displayed on your screen, but you want to run a "Reverse Verification of Course Requests" (SSS04) report. Even though **SSS04** is not an option on the displayed menu, you can still run the report simply by entering **SSS04**...

3.1.2.3 Invoking menus from the system prompt

Your system manager may have configured your account so that you enter a menu automatically each time you log in. If not, you can manually invoke the menu system by entering the command **MENU** at the system prompt:

\$ MENU↓

Using the System Working with Screen Applications

3.2 Working with Screen Applications

Many programs use *formatted screens* to present information to you in an easily readable form. A formatted screen is essentially the electronic equivalent of a paper form. It consists of a fixed **background**, corresponding to the pre-printed lines and words on a paper form, and a series of **fields**, corresponding to areas where you would fill in information on a paper form. The background and the fields are usually displayed with different visual characteristics so that you can easily tell them apart. Figure 3-2 show an example of a screen used by the **STUCRT** program.

FY90 STUCRT DIGITRONICS SECONDARY SCHL #25 06/26/92 17:17	
NUMBER LAST-NAME FIRST-NAME MIDDLE-NM. SEX GR BIRTHDATE OTH-NAME E/C SF [65911] [ABRO NAHRAIN F 6 04/12/80 7	
STREET-ADDRESS CITY ZIPCD GRID# AREA PHONE ROOM 1442 VISTA GRANDE RD EL CAJON [92019]	
PRIMARY-GUARDIAN-NAME PRIMARY-WORK SECONDARY-GUARDIAN-NAME. SECONDARY-WK [M/M SABAH ABRO] [] [] [] [] [] [] [] [] []	j
95 [] [] [] [0] [DETROIT,MI] []] [] [] [07/01/87] ADV ADVISOR NAME R/I IMM-DATE TRK DATE-ENRL DATE-LEFT ST	
SEC PER S COURSE-TITLE.TEACHER-NM.ROOM SEC PER S COURSE-TITLE.TEACHER-NM.ROOM	
[300] 2 S P US HIST C BUSCH HIS4 401] 7 S SR ENG GEN COE ENG5 [301] 2 S STUDNT ASST* BUSCH [] [513] 3 S P SOPH ENG FOWLER LA05 []	
[726] 3 S BUSINESS MAT KAWKA FS14] [222] 4 S PE SEM 2* BEAL WGYM] [127] 5 S P JR ENG C ALLED ENG3	
[128] 5 S SP PROJ-SC S ALLED FS23	
ENTER FUNCTION [] REF-DATA [] A=ADD B=BCK C=CHG D=DRP E=END F=FWD G=GET H=HLP I=INACT P=PER R=REG S=SEC T=TR	t.

Figure 3-2: Typical formatted screen display

(Beware that the **STUCRT** screen used at your site has probably been more or less customized for your specific needs, so it might not look *exactly* like the "plain-vanilla" version shown here.)

STUCRT, which is used to maintain the Student Master files for secondary schools, is a fairly typical representative of screen-based display and update programs. Notice that most of the screen—all but the last two lines, in fact—is occupied by data fields and their associated background. You can alter the data in some of the fields, while others are for display only. The last two lines of the screen are where you control the program.

3.2.1 Operating sequence

Everything you do with **STUCRT** begins by entering a **function code** in the box labeled "ENTER FUNCTION" (some functions also require some additional data in the "REF-DATA" area). The very bottom line of the screen summarizes the function codes available.

Most screen programs have a few basic functions in common. The table below summarizes the functions and function codes TYPICALLY used with screen programs:

Code	Meaning
A	Add a new record

Using the System Working with Screen Applications

В	Back up by one record in sequence
С	Change currently displayed record
D	Delete currently displayed record
E	Exit from program
F	Go forward one record in sequence
G	Get a specific record
H	Display help text for the program

Remember that all programs may not use function codes in the way described above; the table simply describes the *most common* usage. Some programs attach different meanings to specific function codes, and others include codes in addition to the basic ones. Notice that **STUCRT**, for example, includes not only the codes shown above, but several others to control additional functions specific to **STUCRT**.

Basically, then, a session with **STUCRT** consists of following two steps, repeated as many times as necessary:

Get the student record you want to work with on the screen. Using the various function codes, you can scan through the file alphabetically until you find the student you want, get a specific student by giving a name or ID number, or even add an entirely new student record.

Do something to the record. You can request to alter some of the data in the record, or drop the entire record.

When you are done working with **STUCRT**, issue an \mathbf{E} (end) command to return to your menu or system prompt.

3.2.2 Using keyboard editing functions in screen applications

When you are entering data into a formatted screen application, you can use a number of special keystrokes in order to move around the screen and edit data. Briefly, these are:

 \leftarrow , \rightarrow , \uparrow , \downarrow Each moves the cursor one step in the direction indicated by the arrow.

INSERT or CONTROL + A Toggles between insert mode and overstrike mode.

CONTROL + B Moves the cursor backwards by words.

REMOVE or CONTROL + D Deletes the character at the cursor.

CONTROL + E Moves the cursor to the end of the current field.

CONTROL + F Moves the forward by words.

CONTROL + H Moves the cursor backward by fields.

TAB Moves the cursor to the next field.

DO or CONTROL + N Displays a pop-up window from which you can select various utilities and desk accessories.

CONTROL + P Saves a snapshot of the current video form in the file SCREEN.LST.

CONTROL + R Redraws the entire display (useful if the screen contents become garbled for some reason).

\$<\$\FBOX{X} Backspaces and erases characters.

Using the System Running Report Programs

CONTROL + U Progressively "undoes" input, restoring first the current field, then the entire screen.

Three CONTROL + U commands return the screen data to its original state.

CONTROL + W Deletes the word to the left of the cursor.

HELP Displays a help message for the field in which the cursor is located.

3.3 Running Report Programs

Report programs present a different operating style as compared to screens. Screen programs are highly *interactive*. A session with a screen program is much like a dialog: you give a command, the program responds to that command, you give another command, the program gives another response, and so on. Reports, in contrast, are much less conversational. After the program prompts you for any necessary operating parameters (such as sorting options, selection criteria, and the like), it needs no further attention. You start the program, supply whatever information the program requests, and leave it to chug away. After a time, the program finishes and you have a completed report ready for printing.

To illustrate the use of a typical report program, let us run a "Brief Student Directory" by grade level. The program **STU01** produces this report. Figure 3-3 shows the entire dialog that would appear on your terminal while running **STU01**.

Using the System Running Report Programs

```
DS1> STU01,
PROGRAM NAME:
*THIS IS A CONDENSED LISTING OF STUDENT NAME, SEX, GRADE, BIRTHDATE AND STATUS *
*WITH THREE COLUMNS OF STUDENTS PER PAGE.
****************************
Current Switch Settings: ABCDEFGHIJKLMNOPQRSTUVWXYZ
                      000000000000010010000000
SW VAL DESCRIPTION
G 0 Print all students alphabetically
G 1 Print all students alphabetically within grade level
G 2 Ask user for a single grade level to be printed
<RETURN> to continue or A)bort S)et switch ?
********************************
>Enter Switch Letter (RETURN to end): GJ
>Enter Numeric Value for Switch: G 1,
>Enter Switch Letter (RETURN to end): _
PROGRAM NAME:
STU01
*THIS IS A CONDENSED LISTING OF STUDENT NAME, SEX, GRADE, BIRTHDATE AND STATUS *
*WITH THREE COLUMNS OF STUDENTS PER PAGE.
*****************************
{\tt Current \ Switch \ Settings: \ ABCDEFGHIJKLMNOPQRSTUVWXYZ}
                      00000010000000010010000000
SW VAL DESCRIPTION
G 0 Print all students alphabetically
G 1 Print all students alphabetically within grade level
G 2 Ask user for a single grade level to be printed
<RETURN> to continue or A)bort S)et switch ? -> J
STU01-Brief Student Directory (3 columns)
SWG=1
Printing by grade
Enter Desired Track or 0 for All
<OUTPUT DIRECTED TO P1929.LST>
Figure 3-3: Example of terminal dialog for a report program (STU01)
To start STU01, enter STU01 → at the system prompt, or select the program from the menu.
 PROGRAM NAME:
 STU01
*************************
 *THIS IS A CONDENSED LISTING OF STUDENT NAME, SEX, GRADE, BIRTHDATE AND
STATUS *
```

Using the System Running Report Programs

*WITH	THREE	COLU	JMNS	of	STUD	ENTS	PER	PAGE	Ι.								
*																	
*****	****	****	****	***	****	***	***	****	****	***	***	***	***	***	***	***	* *
*****	. 4																
Currer	it Swi	tch S	Setti	.ngs	: AB	CDEF	GHIJ	KLMNC	PQRS	TUV	NXY2	i					
					0.0	0000	0000	20000	1001	000	ეიიი	1					

The standard startup dialog begins with an announcement which identifies the program (**STU01**) and gives a brief outline of the program's function. The announcement is followed by your current *switch settings*. There are twenty-six of switches, named A–Z, each having a one-character value (listed under the corresponding letter). Many programs use the settings of these switches to select options or otherwise determine their behavior. You have your own private set of switches, separate from those of other users.

SW VAL DESCRIPTION

- G 0 Print all students alphabetically
- G 1 Print all students alphabetically within grade level
- G 2 Ask user for a single grade level to be printed

The standard dialog then lists the switch settings which affect the particular program you are running. In this example, **STU01** is sensitive to the "G" switch: setting it to "0" lists all students alphabetically, "1" lists students by grade level (alphabetic within each grade), and "2" lets you list just the students in particular grade.

```
<RETURN> to continue or A)bort S)et switch ? -> S↓
```

The startup dialog now gives you the opportunity to alter one or more switch settings to specify the report you wish to produce. Checking the current switch settings displayed earlier, you find that your "G" switch is set to "0", which would produce an alphabetic listing of the entire school. You need to change switch "G" to a "1", to get a listing by grade. So you respond to this prompt with "S".

```
>Enter Switch Letter (RETURN to end): GJ
>Enter Numeric Value for Switch: G 1J
>Enter Switch Letter (RETURN to end):J
```

The switch-changing dialog asks you to enter the switch you want to change, to which you respond $G \rightarrow$. The program then asks you for the value for switch "G"; you respond with $1 \rightarrow$. When the program asks for another switch to set, you simply press \rightarrow to indicate that you have no more settings to make.

```
PROGRAM NAME:
STU01
```

Using the System Getting help or more information

The initial announcement appears again so that you can confirm your switch settings. Note that your "G" switch is now set to "1", to produce a listing by grade. At this point, you could elect to make more switch settings (by entering $S \rightarrow$), or exit the program entirely (by entering $A \rightarrow$). If your switch settings are all correct and you want to go ahead with the program, just press \rightarrow without entering anything else.

```
STU01-Brief Student Directory (3 columns) SWG=1 Printing by grade Enter Desired Track or 0 for All 0 \downarrow 1
```

Here is the **STU01**-specific part of the startup dialog. (Up to this point, the set-up routine has been a standard dialog shared by many programs.) **STU01** displays another announcement, then asks you to enter an attendance track number. If your school uses multi-track attendance and you want to list only the students on a certain track, enter that track number (followed, as usual, by \downarrow); if you want students in all tracks, or if you don't use multiple tracks, enter $0 \downarrow 1$ as in the example.

```
<OUTPUT DIRECTED TO P1929.LST>
```

No more input is required. **STU01** has collected all the information it needs to produce the desired report. After a time, the program will display an "<OUTPUT DIRECTED TO ...>", indicating a *file* to which the report is being written. When the program has finished, you can send this file to a printer, or examine it on your screen.

3.4 Getting help or more information

There are a number of means of getting more information about and application programs:

Using the System Getting help or more information

From the system prompt: Run the program **DOCCRT**, which lets you browse through a file of documentation about applications that are available to you.

From a menu: Issue the menu HELP command to get information about a menu item.

Within a screen application: Use the HELP key to get information about the field where your cursor is currently located. Or, use the "H" (help) function for a more detailed explanation of program functions.

These techniques are described below.

3.4.1 Using DOCCRT

The **DOCCRT** screen program accesses a database of information about other programs that are available to you.

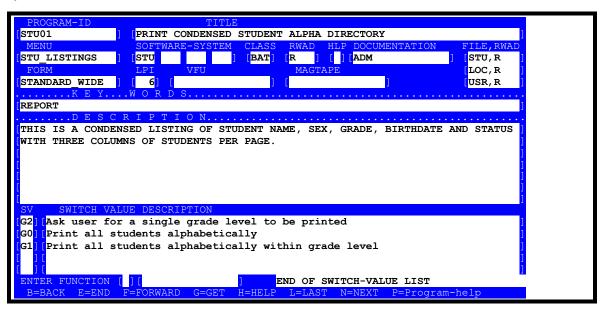


Figure 3-4: Sample DOCCRT display

Figure 3-4 shows an example of the **DOCCRT** display.

To run **DOCCRT**, simply enter DOCCRT :; you may do this either at the system prompt or from a menu.

Enter DOCCRT STU01 → (at the \$ prompt) and you will see a screen like the one in Figure 3-4.

3.4.2 Getting Information about Menu Items

While working with the menu system, you can get information about menu items with the **HELP** command. Enter HELP, a space, and the item number or item code of the menu entry you want help with. For example, typing HELP 2 or HELP STU02 on the sample menu of Figure 3-1 would produce a help display similar to the one in Figure 3-5.

Using the System Getting help or more information

```
STU02
                  PRINT STUDENT DIRECTORY
THIS REPORT PRINTS THE STUDENT'S NUMBER, NAME, GRADE, PARENT NAME, PHONE
NUMBER AND GRID NUMBER IN A STUDENT DIRECTORY. THE REPORT CAN BE PRINTED FOR
ALL STUDENTS BY NAME OR GRADE, OR A PARTICULAR GRADE CAN BE PRINTED
ALPHABETICALLY.
      SWITCH VALUE DESCRIPTIONS
    PRINT IN ALPHABETICAL ORDER
    CREATE DOUBLE SPACED REPORT
    PRINT ALPHA BY GRADE LEVEL
G1
    PRINT ONE GRADE LEVEL (OPERATOR INPUTS GRADE)
    CREATE SINGLE SPACED REPORT
[Press RETURN to Continue]
 SOFTWARE-SYSTEM CLASS
                        RWAD
                                               FILE, RWAD
                                                          FILE, RWAD
                                                                     FILE, RWAD
[STU
                ] [BAT] [R
                                               [STU,R
                                                        ] [LOC,R
                                                                   ] [USR,R
  FORM
                   LPI
                          MAGTAPE
                                                        ] [
                                                                   ] [
[STANDARD WIDE
                ] [ 6] [
```

Figure 3-5: Help display for a menu item

For help on the using the menu system itself, press the HELP key when the menu is waiting for a command.

3.4.3 Getting help while in a screen application

There are two types of help available to you while you are using a screen application program like **STUCRT**: **field help** and **tutorial help**. Tutorial help is activated by a function code, and field help is activated by the HELP key.

3.4.4 Tutorial Help

Tutorial help lets you peruse a brief user manual about a program. To activate this form of help, enter the function code "H" when the program is waiting for a command. Your screen will clear and you will see the first page of the help text. The first page of the tutorial text is usually a table of contents which directs you to specific pages for information about particular topics.

When a page of text has been displayed, you have several options:

To go to a specific page: Enter the page number (followed by $\ \ \ \ \ \ \ \)$. For example, display page 2 by entering $2\ \ \ \ \ \ \ \ \$.

To skip ahead or back a number of pages: Enter a the number of pages you want to skip, preceded by either a plus sign (forward) or a minus sign (backward). Thus, entering +2→ skips ahead two pages; entering -3→ goes back three pages.

To return immediately to the screen program: Type QUIT....

Using the System Changing your Password

If there is no help tutorial for a program, you will receive the message "%Sorry - No help available" in response to the "H" function.

3.4.4.1 Field Help

At any time in a screen program, you can press the HELP key on your terminal to get information about the field in which the cursor is located. If your model of terminal does not have a key labeled "HELP", some other key will be designated as a replacement HELP key. On VT100-series terminals, for instance, PF2 substitutes for HELP. On Televideo terminals, the F2 key serves as a HELP key.

Short help messages will appear in the STATUS field, which is usually occupies the right-hand half of the second-to-last line of the screen. Messages that are too long for the STATUS field will temporarily overlay parts of the formatted screen. The last line of a long message will tell you to "[Press RETURN to continue]", and the message remain on the screen until you press the J key.

3.5 Changing your Password

As a security-enhancing measure, the VAX limits the length of time during which you may use a given password. In VAX terminology, your password has a limited *lifetime* (typically 90 days), after which it is said to *expire*. After your password has expired, you cannot access the system until you choose a new password. In addition, you may voluntarily change your password any time you want.

As expiration time of your current password nears, you will begin seeing messages similar to this one each time you log in:

WARNING - Your password expires on Tuesday, 23-JUN-1992 20:18

These messages let you know that will have to choose a new password after the indicated date and time.

1. Enter the command SET PASSWORD, either at the system prompt or in a menu. You will be asked to supply your current password; enter it and press ↓:

\$ SET PASSWORD

Old password: MYOLDPASSWORD, New password:

Your old password will not appear on the screen as you type it.

If you try to log in after your password has expired, the following message will appear:

Your password has expired; you must set a new password to log in and you will be automatically placed into the password-changing dialog.

1. If you are required to use a *generated* password, the system will now display a list of randomly generated nonsense words, followed by a **New password:** prompt:

anroackyax an-roack-yax aifmartpag aif-mart-pag cuozanosaw cu-o-za-no-saw

Using the System Changing your Password

Choose a password from this list, or press RETURN to get a new list New password:

You must choose your password from the left-hand column of this list (the column on the right shows the "words" broken into syllables). If you don't like any of the generated words shown, you can press $\[\] \]$ to get another list.

If you are not required to use a generated password, just the **New password:** prompt will appear. In this case, you can choose any password composed of letters, digits, dollar signs (\$), and underscores ().

1. New password: In response to the **New password:** prompt, enter the word or phrase that you have chosen as your new password and ↓.

New password: MYNEWPASSWORD↓

Nothing will appear on your screen as you enter your new password.

1. The system will prompt with Verification:. Enter your new password again, spelling it exactly as you did the first time, and press →:

Verification: MYNEWPASSWORD↓

Again, the password does not appear on your screen as you enter it.

If you entered everything correctly, the system prompt (\$) or your menu will reappear and your your new password will be in effect for all future logins. If you made a mistake, the system will display an error message explaining what was wrong, and your current password will remain unchanged.

The password changing procedure can fail for any of several reasons:

- You didn't give the correct old password: If you are using the SET PASSWORD command, you
 must supply your current password in order to initiate the password-changing routine. This
 prevents someone from just walking up to your logged-in terminal and issuing a SET PASSWORD
 command to change your password.
- You didn't type two identical copies of the new password: Requiring you to type the new password twice reduces the chances of accidentally setting your password to an unknown value as the result of an unnoticed typing error.
- The new password you specified wasn't long enough: Your password must be longer than a certain number of characters. The typical minimum password length is 6 characters, but even longer passwords may be required on your system. Your system may impose a minimum password length. Longer passwords enhance security because they are harder to guess.
- You're trying to reuse a password too soon: The system prevents you from re-using any password that you have used in the recent past—typically within that last year.
- You're trying to use an "undesirable" password: The system screens out common words and phrases which might be easy to guess and prevents you from using such words as passwords.

Using the System Selecting Fiscal Year and School

3.6 Selecting Fiscal Year and School

Data in the VAX system is separated according to fiscal (or academic) year and school. You can access data from only one school and one year at a time. But, if necessary, you can switch to different schools or years with the commands **DFSCHL** and **DFYEAR**. If you won't be using this capability, you may skip the rest of this section.

To check your current school and fiscal year settings, use the **DFMSET** utility:

```
$ DFMSET ↓
*PRT_
SWITCH
         ABCDEFGHIJKLMNOPORSTUVWXYZ
SETTINGS 0000001000000010000000000
 F/Y=92
 DST=075 DIGITRONICS TEST DISTRICT
 SCH=025 DIGITRONICS TEST SENIOR HIGH #1
* 4
SWITCH
         ABCDEFGHIJKLMNOPQRSTUVWXYZ
SETTINGS 0000002000000010000000000
 F/Y=98
 DST=099 DIGITRONICS TEST DISTRICT
 SCH=999 DIGITRONICS TEST SENIOR HIGH #1
$
```

This example shows that you are currently set to fiscal year (F/Y) 1992, and school #25 (Digitronics Test Senior High #1).

To change to a different year, enter the command **DFYEAR**, a space, and the year:

```
$ DFYEAR 1992↓
YEAR SET TO 1992
```

You can enter the entire four-digit year, as in the example, or just the last two digits (e.g., **DFYEAR 92**). Normally, the fiscal year is designated by the calender year in which it *ends*; thus, the fiscal year running from 7/1/91-6/30/92 is Fiscal 1992.

To select a new school, enter the command **DFSCHL**, a space, and the code number of the school:

```
$ DFSCHL 25↓ SCHOOL CODE SET TO 0025 DIGITRONICS TEST SENIOR HIGH #1
```

Every school is designated by a 3-digit code number; you should have a list of schools and their numbers handy for your reference.

4 Communicating with other users

There are two methods that you can use to communicate with other users on your VAX system: **MAIL** and **PHONE**. **MAIL** is a computerized version of conventional mail in which users exchange messages. **PHONE** lets you carry on two-way conversation with another user.

4.1 Using MAIL

The **MAIL** facility is basically an electronic post office. You compose a message and specify who is to receive it. The **MAIL** system then delivers a the message to the recipient, to be read at his or her convenience. Likewise, other users can send messages to you.

To send a mail message or read any messages waiting for you, you must get into the **MAIL** utility. There are three ways to do this:

- From the system prompt (\$), enter the command MAIL.
- From a menu, enter the command MAIL ; or if MAIL is offered as an item on the menu, you select it in the usual manner.
- From within a screen program, press the DO key or CONTROL + N, and select the **M** option from the pop-up window that appears.

When MAIL is running, it displays the prompt MAIL> to that it is ready to accept commands.

4.1.1 Sending a message

To send a message, enter the command SEND. MAIL will then prompt you for the particulars of the message: a list of primary recipients, a list of carbon-copy recipients, the subject, and the text of the message. Press CONTROL + Z at the end of the message text, and MAIL will deliver the message. Here is a short example of how to send a message:

\$ MAIL J

MAIL> SEND↓

To: BOB, DIANE, KEN↓
Cc: JOHN, MARY↓

Subj: Demonstration of MAIL↓

Communicating with other users Using MAIL

```
Enter your message below. Press CTRL/Z when complete, or CTRL/C to quit: 

There will be a short demonstration of MAIL today in the 

Conference Room. All of your questions will be answered then. 

Mike, 

CONTROL+Z

MAIL> EXIT, 
$
```

Any recipients of your mail message who are logged into the system will be notified immediately that they have new mail; those who are not currently logged in will be informed the next time they log in.

4.1.2 Receiving a message

Each time you log in, the system checks your mailbox for new messages. If you have unread mail waiting, you will see a message such as the following:

You have 3 new Mail messages.

In addition, if someone else sends you mail while you are logged in, you will be alerted immediately by a message on your screen:

New mail from USERNAME

To read your mail messages, get into MAIL as described in above and give a READ command:

```
$ MAIL
```

You have 3 new messages.

MAIL> READ

#1 11-JUL-1986 14:32:19 NEWMAIL

From: DIANE To: MIKE

Subj: Mail Demonstration

The demonstration was most helpful. Thank you for taking the time to put it together.

Diane

MAIL>

To read the next new message, simply press →, or enter another READ command.

Communicating with other users Using PHONE

4.1.3 Getting help with MAIL

MAIL provides a **HELP** command which you can use to obtain information about **MAIL** features. For instance, you can get information about the **SEND** command by entering HELP SEND at the MAIL> prompt, as in this example:

\$ MAIL,

MAIL> HELP SEND,

SEND

Sends a message to another user(s). You can use the SEND command

etc

Subtopic? ↓
Topic? ↓
MAIL>

After displaying information for the SEND command, HELP shows a list of sub-topics related to the SEND command and prompts you with Subtopic? If you wish to see information about one of the sub-topics, enter the subtopic name and **HELP** will show it to you and reissue the Subtopic? prompt.

When you are finished viewing sub-topics, press

in response to the Subtopic? prompt. HELP now displays the Topic? prompt, indicating that you may select another main topic. Pressing

again leaves the HELP mode and returns you to the MAIL> prompt.

To get a list of the main topics for which help is available enter HELP at the MAIL> prompt. You can also enter HELP HELP to get information about using HELP, or HELP GETTING_STARTED for a basic introduction to the features of mail.

4.2 Using PHONE

The **PHONE** facility lets you conduct a two-way conversation with another user. **PHONE** splits your screen into two halves. The top half shows the text that you type, and the bottom one displays the responses of the other user. You see everything that the other user types, and the other user sees everything that you type.

4.2.1 Calling Someone

To call someone using **PHONE**, enter (at system command level) **PHONE**, followed by that person's username. For example:

\$ PHONE SALLY. □

PHONE splits your screen into two windows and displays the message "Ringing SALLY...".

When the called user answers, **PHONE** displays the message "That person has answered your call". You can now begin conversing.

Communicating with other users Using PHONE

When you are finished with your conversation, press CONTROL + Z *twice*: once to hang up the connection, a second time to exit from **PHONE**. If the person you called hangs up first, you only to press CONTROL + Z once.

If the called party does not answer within a reasonable amount of time, press CONTROL + Z to abandon the call and exit from **PHONE**.

4.2.2 Answering a call

If someone phones you, the system will alert you by beeping your terminal bell and displaying a message similar to the following:

USERNAME is phoning you (12:34:56)

This message will repeat every 10 seconds or so until either you answer or the caller gives up.

To answer the phone, you must be at system command level (\$ prompt). Enter the command **PHONE ANSWER**. When the conversation is over, press **CONTROL** + Z twice to hang up and exit from **PHONE**. If the caller hung up first, you only need to type **CONTROL** + Z once.

4.2.3 Rejecting a call

If you receive a call and don't want to talk to the caller at this time, enter (at system command level) the command PHONE REJECT. The caller will receive a message that you have rejected the call.

5 Working with Files

This chapter gives you information about files. It describes what they are and gives you information about how to manage them.

5.1 What is a file?

A file is simply a collection of data grouped under a single name. The files you will be concerned with are **text files**, which contain lines of text.

A file has a name, called a **file specification** (or **filespec**, for short). A filespec contains three parts:

- File name
- File type
- Version number

Punctuation characters separate the components: a period between name and type, a semicolon between type and version.

Here is an example of a filespec:

LETTER.TXT;3

In this filespec, LETTER is the file name, TXT is the file type, and 3 is the version number.

Each component of the filespec has a particular meaning:

File name: The file name is the "main" identifying name associated with a file. It should hint at the nature of the file's contents. For example, a file called LETTER.TXT probably contains a letter of some sort.

File type: The reason for having a file type component in filespecs is to allow you to create families of similar files having the same name but different types. For example, in addition to LETTER.TXT, you might have LETTER.OLD which keeps a copy of an old version of the letter.

Version number: The version number keeps track of how many times a file has been changed. You can have several versions of a file outstanding at any one moment. You do not have to worry much about version numbers. Except in one instance (the DELETE command, discussed below),

Working with Files Your Directory

you never even need to mention them specifically because the system assumes you want to work with the most recent version of a file (that is, the one with the highest version number).

5.2 Your Directory

The system assigns you a private storage area called a **directory** for your files. Normally, only you yourself can access the files in your directory area; the system protects your files from other users.

You can easily find out what files you have in your directory with the DIRECTORY command. Here is an example of this command:

```
$ DIR.J
LETTER.TXT;1 LETTER.OLD;1 LETTER.4MAY86 LOGIN.COM;1
MAIL.MAI;1 TELCO.LTR;2 TELCO.LTR;1 TELCO.BAK;1
Total of 8 files
$
```

Notice that there are two versions of the file TELCO.LTR.

5.3 Creating files

Files don't just magically appear in your directory: they have to come from somewhere. Basically, any file you see in your directory came to be there by one of three means. Either:

- 1. You ran a program which wrote its output report into a *print* file
- 2. You created the file yourself
- 3. Someone else put the file there for you

5.3.1 Print files

Most report programs write their output into a file in your directory. In most cases, the system creates a unique filename of the form "Pnnnn.LST" (where "nnnn" is usually the time of day) and displays the name of the file in a message:

```
<OUTPUT DIRECTED TO Pnnnn.LST>
```

5.3.2 Creating your own files

You can use a program called a **text editor** to create a file and fill it with text. Text editors have commands which let you enter your text and correct errors easily. Typical text editing functions let you move around

Working with Files What can you do with them?

within the text, add new material, move text from place to place, and search for specific words and phrases within the text.

The VAX offers two standard text editors: EVE and EDT. Discussion of the operation of these editors is outside the scope of this introductory manual; ask your system manager for more information about text editors available at your installation.

5.3.3 Gifts

Sometimes, other users may put files in your directory for you. For example, the system operator can run a complex or lengthy job for you, then deliver the output report file into your directory for you to do with as you please. Also, your system manager may have arranged security clearances so that you can swap files with some group of users (perhaps the people in your office).

5.4 What can you do with them?

Just having files isn't too useful: it's what you do with them after you've got them that counts. Here are some of the things you can do with a file in your directory:

- Type its contents out to your screen
- Make a copy of it
- Give it a new name
- Delete it

5.4.1 Typing a file

The TYPE command lists out the contents of a file on your screen. Here is an example of its use:

```
$ TYPE TEST.TXT
Line 1
Line 2
Line 3
```

5.4.2 Deleting a file

When you no longer need a file, you can delete it so that it doesn't clutter up your directory. For example, if you wanted to delete LETTER.TXT, you would give the command:

```
$ DELETE LETTER.TXT;*
```

If you wish, you can use the abbreviation DEL in place of DELETE.

Working with Files What can you do with them?

Remember we said that you *almost* never need to worry about version numbers? Well, the DELETE command is the one special case where you *have to* worry about them. With the DELETE command, you must *always* specify a version number. The ";*" at the end of the file specification is a *wildcard* version number which simply means "all versions".

Although in this case we chose to use a wildcard version number to delete all outstanding versions of the file, you could actually give an exact version number. For instance, if you had versions 1, 2, and 3 of the file TELCO.LTR, you could delete just version #2 with this command:

\$ DELETE TELCO.LTR; 2

In general though, it's easier not to worry too much about version numbers, and just remember to stick "; *" on the end of the filespec when using a **DELETE** command.

5.4.3 Copying Files

Copying a file creates an identical duplicate of the file under a new name. Afterward, you have both your original file and the new one, both with identical contents. Here is an example of the COPY command:

\$ COPY LETTER.TXT LETTER.16JUN86

The COPY command consists of the word COPY, followed by the filespec of your original file, followed by the file specification you want to assign to the new copy. Notice that you don't need version numbers here because the system assumes you want to copy the most recent version of LETTER.TXT.

Wildcards are not just for DELETE commands, and also not just for version numbers. By using wildcards in places other than the version number, you can copy whole families of files at once. For example:

\$ COPY LETTER.* LETTER AS OF 16 JUN 86.*

copies all files with the filename LETTER, regardless of file type. Each new file has the name LETTER_AS_OF_16_JUN_86 and the same file type as the corresponding old file. So LETTER.TXT would get copied to LETTER_AS_OF_16_JUN_86.TXT, LETTER.BAK to LETTER_AS_OF_16_JUN_86.BAK, etc.

5.4.4 Renaming Files

Renaming a file simply changes its filespec without changing any of the data in it. For example, suppose you have decided that LETTER.TXT would be better described by the name ATTEND.LTR. You could give the following RENAME command:

\$ RENAME LETTER.TXT ATTEND.LTR

to change the name of the file.

Working with Files Purging Accumulated Versions of Files

5.5 Purging Accumulated Versions of Files

If you revise your files often, many old versions may pile up in your directory. Frequently, your system manager will imposes some limit on the maximum number of versions of the same file, so that your are won't get too cluttered. But still, it's a good idea to get rid of any old versions that you're not using. The PURGE command does this.

PURGE deletes all but the most recent version of each of the specified files. You can purge a specific file, a group of files specified by a wildcard, or all files in your directory. For example, the command

\$ PURGE LETTER.TXT

deletes all old versions of LETTER.TXT. The command

\$ PURGE *.TXT

purges all files of type .TXT. To purge all files in your directory, enter a PURGE command without a filespec:

\$ PURGE

6 Using Color

You can display Digitronics Software applications in color if your video terminal or PC communications software supports the American National Standards Institute (ANSI) method of color specification. Here is a *partial* list of products which support ANSI color:

- DECterm
- ZSTEM 320

If your terminal or emulator is not one of those listed above, you should be able to find out from your owner's manual whether or not it supports ANSI color.

If your have a terminal or emulator which supports ANSI color, your System Administrator can follow steps described in his or her *VFMS Programmer's Reference Manual* to enable you to view Digitronics Software applications in color.

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